SURGICAL MANAGEMENT OF DIABETES: INCLUDING AMPUTATIONS*

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THE surgical aspects of the management of diabetes divides itself into the diabetic who requires a surgical operation such as, the removal of a diseased gall bladder or appendix and the treatment of surgical conditions to which the diabetic is particularly subject, such as carbuncles or gangrene.

Life expectancy has increased from forty to sixty years in the last century with better medical and surgical conrol of epidemic and degenerative diseases and if like advances continue, twice as many people over sixty-five will be alive by 1990 as today. A much larger group of patients is arriving thus at the age when surgical procedures are to be expected. This is particularly true of the diabetic. Joslin this year estimates that there are one million diabetics in the U. S. A. There are ten times more admissions for diabetes to large hospitals today than in 1910. A figure of 2.8 per 1,000 admissions in 1910 at Bellevue is contrasted with 2.1 per 100 of all admissions at the Post-Graduate Hospital averaged for the last five years (Tables I and II). While before most diabetics died early of their disease or its complications, with increasingly improved medical management of diabetes and thus greater longevity more patients will reach this surgical age. A thorough understanding of their surgical management is important because one out of every two diabetics requires a surgical operation sometime before he dies.

In reviewing the literature on the diabetic who required surgery one is impressed with the great change that has occurred with diabetic control inaugurated with insulin. Surgery for the diabetic became safe that day twenty-five years ago. It has not been sufficiently impressed on many physicians, however, and at times procrastination and even ineffective therapeutic measures are utilized in place of necessary opera-

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TABLE I—NEW YORK POST-GRADUATE HOSPITAL

Clinic Attendance—Yearly (average of 5 years)

Total Clinic Attendance		124,308
Total Diabetic Clinic	1815	3700
Total Diabetics in Vascular Clinic	1885	

.2% of all Clinic Attendance Have Diabetes

TABLE II—NEW YORK POST-GRADUATE HOSPITAL

Vascular Surgery Service

Diabetes Mellitus

5 Year Total Hospital Admissions...	53,267	Average per year...	10,653
5 Year Total Diabetic Admissions...	1,160	Average per year...	232

2.1% All Admissions Diabetic

tions merely because the patient has diabetes mellitus. As long ago as 1890 Lord Moynihan said, "no one should be allowed to die of one disease because he has another." This has occurred in too many instances in the history of diabetes. It is to be emphasized that we may do all types of surgery on the diabetic. This includes emergency operations, elective surgery and even reconstructive and plastic surgery. The important point, however, is to have the patient under adequate diabetic control. This requires the careful coöperation of the internist and the surgeon. The patient should be handled jointly and where possible a combined medical and surgical type of service is the ideal. In too many institutions the interest of the internist or medical resident ceases when the patient is transferred to the surgical service and the reverse also is true. One of the foremost advances in handling problems of this type is the combined clinics and services in which the patient is followed from the time he is admitted by both the medical men and the surgeon. Such a clinic by its proximity and intimate exchange of interests soon develops internists with surgical viewpoints and surgeons who know there is more to diabetic management than the Benedict or Fehling test. One can hope for the establishment of more combined services in our hospitals.

TABLE III—NEW YORK POST-GRADUATE HOSPITAL

Vascular Surgery Service

Diabetes and Surgery

Added danger due to:

1. Metabolic inbalance
   - Vomiting
   - Diarrhea and hyperstalsis
   - Starvation
   - Dehydration
   - Acidosis
2. Infection
   - More organism reproduction
   - Less insulin effect
   - Acidosis confuses symptoms
3. Liver function failure
   - Present in diabetes
   - Present in surgical conditions
4. Vacular diseases

Operations on diabetic patients are potentially more dangerous because of certain fundamental weaknesses which patients with diabetes develop (Table III). To control the diabetic there must be a *metabolic balance*. After most abdominal operations there is usually a metabolic upset caused by several factors, one of which is *vomiting*. This may confuse the glucose-insulin regime both by a loss of food intake and by the development of acidosis. The vomitus should be inspected and estimated for food loss and this should be adequately replaced intravenously. Tests for acidosis must be run and this imbalance overcome. The starvation so often present prior to operations or in patients with such a debilitating disease as cancer may deplete the glycogen reserve. In these instances a febrile reaction may reduce the carbohydrate base to a dangerous level. A protein reserve must also be established prior to operation. Diarrhea and hyperperistalsis or the necessity of colostomy or ileostomy results in fluid loss and makes the diabetic control a more difficult problem.

Salt and water balance must be maintained. These are all potentially

dangerous metabolic problems which must be kept more in mind in operating on a diabetic. It illustrates again the necessity for continued medical management by the internist. If the diabetic receives 150 to 200 grams of sugar by mouth or vein in the twenty-four hours after operation with sufficient insulin to utilize it, the danger of acidosis will be slight.

Another source of potential danger to the diabetic is the *post-operative* infection (Table III). There is no evidence that infection develops more often in the diabetic but if an infection does develop, its progress and the loss of diabetic control are more rapid. In the presence of infection insulin is frequently ineffective and in the patient who runs sugar, organisms multiply more readily. This is adequately shown by a high death rate in ruptured appendix in the diabetic. Infection may rapidly direct a patient into acidosis and infection acidosis and acidosis may be difficult to differentiate immediately, as their symptoms are similar. Acidosis with malaise, general abdominal tenderness, pain and vomiting appears like any acute abdominal lesion and may mask an infection for some time. Prophylactic chemotherapy in the major procedures is valuable, particularly in bowel resections. The ability of certain drugs to reduce the bacterial flora in the body should be utilized particularly in these patients. Sulfasuxidine will so greatly reduce the colon bacilli in the colon that it should be part of a routine preparation for operations in this area. Better drugs are becoming available in the near future, and these will reduce further the infection incidence. The necessity for early recognition of a postoperative infection is greatest in the diabetic and diabetic control can be reobtained only when the infection is drained. In addition, operations on the diabetic require a more careful technique—large crushing clamps, heavy ligations and mass ties will be reflected in greater morbidity. Meticulous asepsis and hemostasis is more necessary in this group. "A minor technical error of little moment in the average patient may make the difference between success or failure." An example is the soiling of the peritoneum or wound edge by an appendix stump prior to its cauterization or inversion.

Nearly all diabetics develop liver changes which interfere with glycogen storage and biliary secretion and function. This is true particularly in the severe diabetics and may be sufficient to prevent good control. Many general surgical conditions also lead to liver dysfunction,

the biliary system being a particular offender. A diabetic liver will *not* stand biliary infection and stasis as well as a normal liver. Liver abscesses create a serious problem. Thus an acute cholecystitis will require rigorous diabetic management and early removal.

There are certain diseases to which the diabetic is particularly susceptible. Gall bladder disease has already been mentioned. Autopsies show that one-half of those dying of diabetes have gall bladder disease. These patients should be operated early, prior to the complication stage which will inevitably arise. One cannot expect surgery, no matter how expertly performed, to aid the patient whose liver has been destroyed. There are many doctors whose diabetic patients have diseased gall bladders who believe they are treating their patients correctly by delaying inevitable operations. We feel this is a disservice to the patients as the operation when eventually performed may be at a time when complications make a cure impossible. The risk increases and the ability to surgically cure decreases with the length of time the disease is present. Jaundice in the diabetic greatly increases the operative mortality, possibly due to preventing fat from entering the liver and allowing glycogen deposits. Disease of the pancreas is another condition which patients with diabetes often develop. An acute pancreatitis has been found to be present in one-fifth of all the patients dying in a diabetic coma. This again ties in with biliary tract diseases. Successful handling of such patients requires early operations, i. e., as soon as the diagnosis is made and diabetes controlled.

Goiter is a disease which is incompatible with diabetes. The hyperthyroidism with its rapid metabolism prevents control of the glycemia. Hyperthyroidism interferes with the storage of glycogen or increases its release by an adrenalin-like effect and it is antagonistic to the insulin action. Removal of a diseased thyroid will permit immediate and better diabetic management thereafter. The simple infections as well as boils and carbuncles in the diabetic have been emphasized sufficiently in the literature. Only by repetition, however, do we seem to acquire knowledge. The figure of 20 to 60 per cent mortality from carbuncle in the diabetic has been greatly reduced with chemotherapy, particularly penicillin. There are exceptions, however. One of my patients has had a carbuncle on his face approximately one a year for several years. He develops a leukopenia under sulfa drugs, the first time dropping to 900 leukocytes before the condition was understood. He is also

sensitive to penicillin and each time he appears with this infection of the face the gravity of diabetes and carbuncle is reimpressed on me. The treatment of this infection resolves itself into active and aggressive diabetic therapy and even greater surgical restraint. Chemotherapy must be used and the local wet dressing, if not traumatizing, may help in localizing the lesion and relieving the pain. One can hardly improve on Joslin's edict for the diabetic carbuncle or boil, "Do not squeeze, do not pinch, do not cut and do not run sugar." When there is fluctuation, of course, drainage shortens the course. In respect to these infections I would emphasize again my experience in the value of repeated small blood transfusions. The rationale of such therapy must be understood. It is not to replace hemoglobin and red blood cells but to supply some defensive factor in the circulatory medium in which the patient is deficient. This blood is destroyed by its host in a short time and this defensive factor needs replenishing in two or three days. Not only in the diabetic patient but in innumerable instances of severe infections during the recent war I have seen this factor be the determining one, even in the presence of adequate chemotherapy. The strengthening of the patient's defenses should not be neglected. The benefit of x-ray therapy in localizing these infections early should be remembered and utilized in selected instances. Prophylactically, Brigham emphasized the value of hygiene with, "the washed neck like the watched pot never boils."

The diabetic is as susceptible to the acute abdominal conditions such as appendicitis, or diverticulitis as any other patient. The diagnosis in these instances may be difficult as acidosis may confuse the symptoms or delay the diagnosis. Frequently, the symptoms are insidious and many rupture early. While acidosis causes general abdominal pain and tenderness, a localized tenderness should make one suspect a surgical condition especially if it persists for a few hours despite diabetic treatment. It is well to remember that in a ruptured appendix the diabetes may never be controlled until the peritonitis is drained. In case of doubt operation always should be performed.

Carcinoma.—More operations for cancer are performed today on the diabetic than ever before. The diabetic also is more susceptible to certain carcinomas than other patients. Carcinoma of the pancreas has been found in one-third of the patients who died of diabetes (McKittrick) and one-half of those in Conlin's series.

When the diabetic comes to operation his general medical status should be determined. If the patient is elderly and shows the degenerative arteriosclerosis or cardiovascular change inherent in his disease, the risk will be greater. If not and with diabetic control and management throughout the illness, the mortality should be approximately equal to that of non-diabetics of the same age and in equal status of their cardio-renal vascular systems. We believe it is better if the patient is allowed to run a little sugar. The margin of safety is greater and one is able to tell more readily, the patient's status if shock or coma occurs.

Choice of the Anesthesia.—Local anesthesia is extremely valuable in operations on the abdomen or head but its shortcomings should be understood. Local anesthesia causes increased skin tension and trauma. For this reason it is contraindicated absolutely in operations on the extremities. Some prepared solutions contain adrenalin. Adrenalin is a vasoconstrictor and sugar liberator and should never be used in the diabetic. The various local solutions such as ethyl chloride are likewise contraindicated. Of the inhalation anesthesias cyclopropane is most effective. Ether or chloroform should be avoided. Nitrous oxide with its anoxemia may cause difficulties, especially in a heavily pre-medicated individual. Spinal anesthesia, except in the older age group, is probably the anesthesia of choice for the abdomen. The hypotension accompanying the anesthesia must be prevented if there is marked sclerosis of the peripheral or coronary arteries. Refrigeration anesthesia for operating on the extremities is ideal and will be discussed under amputations. The patient stands a rapid operation more readily than a long one. Glucose and insulin to utilize it should be used during the operation. Postoperatively, the patient should have urine and blood sugars and CO_2 combining power run as often as the severity of the diabetes requires. The patients are particularly susceptible to acid base imbalance and their hydration must be maintained. The value of surgical care combined with medical management is reflected in the mortality figures of less than 4 per cent in over 1,000 major operations at the Mayo Clinic. Early ambulation will reduce the complications and should be utilized. In this early ambulation, non- absorbable sutures are needed. In our hands buried steel wire in the fascia best fulfills the requirements that the suture be strong, easily inserted and with minimal tissue reactions. The reduction of postoperative chest, abdominal and thrombosis complications by early rising we have emphasized before.

Peripheral Obliterative Arterial Disease.—It has been shown quite definitely that arterial sclerotic changes occur many years earlier than we previously thought. In an exhaustive study of all patients without symptoms who were working at forty years of age and over, Wright, Lake and myself reported an incidence of arterial sclerosis in 40 per cent as shown by x-ray and abnormal oscillometric readings. This was much higher than anticipated, but is in line with our present day feelings that sclerotic changes begin ten to fifteen years prior to the development of symptoms. In the diabetic this occurs earlier, especially in the femoral arteries. It is evident that the sclerosis begins as atheromatous changes but involves the walls, too. Joslin's statement that of all diabetics over 40, one-half have femoral sclerosis and that all age groups develop it within five years after the diabetes is discovered may be modified slightly. Certainly, prior to the third decade its appearance can be delayed. Still, approximately one-half of all diabetics die of an arteriosclerotic complication. This group, then, are surgically the most dangerous. With the peripheral sclerosis we have two factors, occlusion and infection. While infection is absent or minimal we treat areas of necrosis and gangrene conservatively, the same as we treat the non-diabetic patient. Toes or sloughs are permitted to self-demarcate, the edges to epithelialize and the dead part to amputate itself. At times, non-traumatizing removal of a dead toe with a rongeur hastens the healing. Any part of the foot that can be retained is saved. No toe or foot amputation requiring anesthesia is performed in this stage. Undermining or pus collections are prevented by sterile soaks and conservative painless debridement of sloughs or saucerizing. To these measures are added three factors, all of which will require careful training of the patient, and it is a duty of the doctor to establish this training, as emphasized by Duryee. These factors are (1) the elimination of all smoking. The part that nicotine plays in patients with arterial occlusion is well established. The occlusion of small collaterals by spasm due to nicotine has been definitely proven. The fact that nicotine itself may be a cause of occlusion other than by spasms is not unlikely. The work of Wright and Duryee, Short, Johnson, Silbert and more recently Weinroth and Herzstein has emphasized this view and there is enough evidence to conclude that if the tendency to sclerose is inherent or acquired, nicotine may precipitate it. In addition, Lundberg and Lundberg have shown a rise in blood sugar of 50 per cent and higher by smoking two

cigarettes, apparently on an adrenalin stimulating basis. We who study and work on the blood vessel system and observe the great part that smoking plays, view with considerable apprehension the nicotine problem. With figures showing that up to 50 per cent of the population will die of cardiovascular renal disease and the certain knowledge that smoking speeds the rate of the disease, it seems time to consider whether the tobacco habit may not be a national scourge.

Youngsters are encouraged to acquire the habit from an early age. National advertising and radio broadcasts constantly extolling the virtues of cigarettes play their part. During the recent war free smokes and smokers made a cigarette a part of each man. Seriously wounded men were given a cigarette even before a dressing or plasma. While in half of the population this may not be too harmful, in the rest a habit of smoking will be definitely deleterious and perhaps one day the deciding factor in the loss of a limb or life itself. In everyone over fifty there is some degeneration present in the arterial tree and this is especially so in the diabetic. The great difficulty of breaking any habit is human and this is particularly true of the smoking one. We believe a campaign on hygienic and preventive medicine lines should have at least equal radio time with such a destructive factor as tobacco. Perhaps we are too vehement but when one has heard strong-minded men admit they cannot give up smoking even to save their limbs the tobacco habit becomes a true physical menace.

The second factor is the prevention of skin breaks and infection This is of extreme and fundamental importance. It requires attention to a hygienic regime in which the feet are cleansed as often and as carefully as the face. Pressure points such as blisters, corns and calluses, and ingrown toe nails must be eliminated by correctly fitting stockings and shoes. Fungus infection, a frequent forerunner for the skin break necessary for secondary infections to enter, must be controlled. In this connection all caustic materials are dangerous. This includes the corn cures and the salicylic and benzoic acid compounds. A very simple preparation of potassium permanganate in from 1:5000 to 15,000 is safe and effective when used for twenty minutes every three to five days. The use of skilled and correct podiatry is important both in the clinic and home and instruction on nail care at home should be given. The third point is an effort to stimulate collateral circulation and reduce spasm in the blood vessels still functioning in the limb. One simple, adequate

TABLE IV—NEW YORK POST-GRADUATE HOSPITAL
Vascular Surgery Service

Diabetes Mellitus

Amputation Incidence—1940-1945

	Total 22
Incidence amputation per clinic visit	.0011
Incidence amputation per hospital admission	.018

measure is rest, another is the use of Sitz baths regularly. Postural changes of the Burger exercise type may aid and the Saunder's oscillating bed is another helpful method. Pancreatic tissue extracts have a place in this therapy by their adrenalin-neutralizing effect. It is a little too early to state the part the anti-coagulants, heparin and dicumarol, may play in this respect but we are greatly encouraged by our work on some so far and they may be a decided addition to our therapeutic armamentarium. In a selected group in which spasm is particularly a factor, sympathetic nerve blocks and sympathectomy will prevent or delay the onset of gangrene. This is effected by increasing the capillary blood flows. While there may be some question as to the effect of sympathectomy on the blood supply of muscles, there is no question but what the skin circulation in selected patients is improved and it is in the skin that the gangrene first develops. If sympathectomy is to be helpful it must be performed before gangrene is present. We believe the poor statistical results previously reported from sympathectomy in arterial obliteration were due to the fact that the operation was performed on late cases where gangrene was present; hopeless problems already. Sympathectomy cannot replace dead tissue. If one reserves sympathectomy for those patients with peripheral arterial symptoms when blocks show adequate skin temperature rises, the procedure will be helpful. Sympathectomy was performed in twenty-four patients this last year with only one amputation thereafter necessary and this patient should not have had the sympathectomy performed. It is important that the patient has demonstrated his ability to give up smoking before considering the operation. Whiskey, papaverine and aspirin are vasodilating drugs of some aid. That this conservative type of therapy will be effective in most instances is shown by the amputation incidence at Post-

Graduate Hospital (Table IV); of twenty-two in 18,500 visits of diabetics to the clinic (.0011 per cent) and twenty-two in 1,160 admissions of diabetics to the hospital (.018 per cent).

Local infection once present is difficult to eliminate. In addition, occlusion of local vessels may cause tendon or muscle sloughs. Locai amputations of toes may then be required. Wire sutures are placed but not tied in this type of amputation. Where several toes are involved we are interested again in the metatarsal amputation with solar flap, again not closed as discussed by McKittrick. Many of these will heal provided no closure is done and we are proximal to the area of slough. Sterile daily soaks aid healing by removing any collections in the wound. Again let me emphasize that any part of the patient's own foot that he can stand on is better than the most perfect prosthesis.

There are published results on below-knee amputations and their value in rehabilitation. We do not do many below-knee amputations. I believe we save part of the foot in many that others would amputate below the knee. Where spreading infection or gangrene dictates an amputation it is safer above the knee due both to distance from the infection and better blood supply. Once the femoral artery divides, the branches are extremely small. When infection is spreading there comes a time when the decision for operation must be immediate. It is wise to prepare the patient and family for such a possible decision so that there will be no delay at that time.

There is a safe period during which the diabetic can stand a major amputation. If this optimal time passes, like the optimal time for goitre surgery after iodine preparation, it cannot be regained.

Pre-operative preparation should include attention to diabetic control, chemotherapy and adequate local cleansing. The gas forming organisms can be eliminated if the chemotherapy and local cleansing are combined. Clostridium welchii and Bacillus perfringens inhabit the colons of elderly individuals. As these patients are bed ridden, these organisms may be rubbed into the skin. To eliminate them we use three individual skin washings prior to operation. The first scrubbing stimulates the sebaceous glands to secrete and the other ones wash off any organisms thus liberated. In one early case of gas bacillus death we were able later to culture the organism from the skin below the amputation site. Penicillin and prophylactic gas gangrene serum should be used.

After considerable experience we now employ refrigeration anes-

TABLE V—NEW YORK POST-GRADUATE HOSPITAL
Vascular Surgery Service

Anesthesia used in Diabetic Amputation

Cyclopropane	20
Refrigeration	16
Local	3
Spinal	1

thesia in all our major amputations (Table V). The technique modified from that of Allen and Crossman consists of introduction of the limb into the icebox for one hour, application of a tourniquet and return to the icebox for one and one-half hours. Operation can then be performed without further anesthesia or without pain provided the sciatic nerve is anesthetized locally before division. This should be done in all anesthetics, as sectioning of the sciatic nerve can cause shock. In one instance the blood pressure dropped to o when the sciatic was divided under nitrous oxide without previous novocaine infiltration. In some, out of diabetic control, the tourniquet performs the functions of amputation; the temperature drops, with no further absorption and diabetic control may be obtained. In these, amputation may be postponed many hours to a safer period. The amputation technique consists of a circular incision at the level of the patella with division of the muscles one inch above the skin edge where they are mostly tendinous and division of the femur directly above the condyles. No muscle or fascial flaps are made and the stump is closed by three or four steel wire sutures through the skin only. No drain is necessary as there is adequate drainage opening between the sutures. The periosteum is not removed from the femur as this periosteal excision may cause a bone necrosis. In some, sulfa powder is applied locally. The wound is dressed and immediate traction applied by weights on a stockinette. The nerve end is treated by simple ligation and severence with a sharp scalpel one-half inch distal to the suture. Phantom limb pain has been no more common with this simple method than after alcohol injections or plastic operations on the nerve. In our experience phantom limb is best treated by forgetting it. Phantom limb is natural after amputation but phantom limb pain is abnormal. Phantom

limb pain is a contagious lesion and one often can prevent its appearance by not suggesting it. On one Navy hospital ship load from Saipan every one of twelve amputees had phantom limb pain. When we questioned the amputees, we found that one of them had a brother who had had phantom limb pain and had told his brother about it. I recall no other phantom limb pain that early in all of the Marine and Navy casualties I saw. Postoperatively the diabetes is watched carefully.

The patient should be out of bed immediately after the operation to reduce complications. We place them in a chair the same day. We cover the stump with oil silk to prevent contamination. The splint permits early movement. Even when weights are applied the patient may be in a chair. The wound is not dressed, unless fever requires it, for ten days. We have had 88.8 per cent primary unions by this technique in contrast to 20 per cent previously. The pre-operative diet and insulin are started at once and if not tolerated, replaced by intravenous feedings. Again, the patient is permitted to run a small amount of sugar until he is stabilized.

One of the most important parts of our service to the diabetic amputee now begins. With the coöperation of the physiotherapy, internal medicine and social service departments we begin rehabilitation at once. The patient is taught to use crutches and to go to the bathroom immediately. Even elderly individuals will learn to use crutches provided they are started early in walkers. Where amputation has appeared inevitable, arm and shoulder exercises have been developed before operations. The patient begins to look forward eagerly to the physiotherapist's visit and we are able with very few exceptions to have these patients walking on crutches when they leave the hospital. This makes them independent and gives them an ambition for an artificial limb. In my experience the diabetic who is relegated to a bed or wheelchair soon dies. I cannot over-emphasize the change this rehabilitation program has made in our amputees. The Social Service contacts the employers and friends and where possible resumption of work, even at home, is started, frequently with the use of other amputees to show the progress that can be made. We encourage the early application of an artificial limb.

Until such time as we are able to control the various factors that cause arterial degeneration, this problem of amputation will be with us. No gadget or mechanical marvel apparatus will be the answer. Careful

TABLE VI—NEW YORK POST-GRADUATE HOSPITAL
Vascular Surgery Service

100 *Major Amputations for Vascular Disease*			
Diabetes	40	Deaths	4
Arteriosclerosis	38	Deaths	2
Thrombo-angiitis obliterans	4	Deaths	0
Embolic	6	Deaths	4

TABLE VII—NEW YORK POST-GRADUATE HOSPITAL
Vascular Surgery Service
Deaths After Amputation for Diabetic Gangrene—1940-1945

Sex	*Age*	*Time of Death*	*Cause*
1. Male	72	6 weeks after operation	Cerebral thrombosis
2. Male	74	Survived guillotine amputation Died 4 weeks after revision	Shock
3. Female	57	7 weeks after operation	Ascending gangrene of stump into buttocks and abdomen
4. Female	62	7 days	Infection; refused operation for one month

common sense and conservative measures will help many permanently and the rest until such time as the life of the part is lost and the infection is becoming uncontrollable. Immediate and adequate surgery then will result in the highest percentage of viable patients. The patient who can be taught "to live with his disease and in spite of it with the help of a careful physician will outlive perhaps his undiseased fellow men."

To know one's physical shortcomings makes possible preparation in advance to combat the eventual complication stage. If I may quote again "diabetes is a good disease itself, it just keeps bad company." We must guard against this bad company.

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